

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: James C. Fye Examiner: Smith  
Serial No.: 10/699,311 Group Art Unit: 2421  
Filed: October 30, 2003 Docket No.: H0005246  
Title: AN ARCHITECTURE FOR MULTI-CHANNEL VIDEO PROCESSING

**ARGUMENTS ACCOMPANYING PRE-APPEAL BRIEF REQUEST FOR REVIEW**

## I. Status of the Claims

Claims 1, 4-5, 7-8, 11-12, 19 and 22 stand rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Machida (EP Patent 1,158,788) in view of Reynolds (U.S. Pat. Pub. 20020147987), and further in view of Mizutome (U.S. Pat. Pub. 20020078447). Claims 2-3 and 20-21 stand rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Machida in view of Reynolds and Mizutome and further in view of Itoh (U.S. Pat. 6,487,719). Claims 6, 9-10 and 27-28 stand rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Machida in view of Reynolds and Mizutome and further in view of Miyazaki (U.S. Pat. 5,883,676). Claim 13 stands rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Machida in view of Reynolds and Mizutome and further in view of Reitmeier (U.S. Pat. 6,118,498). Claim 14 stands rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Machida in view of Reynolds, Mizutome, Reitmeier and further in view of Miyazaki. Claims 15-18 stand rejected under 35 U.S.C. § 103(a) as being obvious over Machida in view of Reynolds, Reitmeier, Miyazaki, Mizutome and further in view of Miura (U.S. Pat. 6,456,335). Claims 23-25 stand rejected under 35 U.S.C. § 103(a) as being obvious over Machida in view of Reynolds, Mizutome and Miura. Claims 26 stands rejected under 35 U.S.C. § 103(a) as being obvious over Machida in view of Reynolds, Mizutome and Kovacevic (U.S. Pat. Pub. 20020150248).

II. Arguments – 35 U.S.C. §103(a)

A. **Claims 1-12 and 19-26**

Amended independent claim 1 recites, in pertinent part:

“[a]n apparatus for display of video data from a plurality of video sources, the apparatus comprising...a plurality of video decoders coupled to the plurality of video channels, each video decoder coupled to a different one of the plurality of video channels...”

To render a claim obvious, the cited references must disclose each and every element of the rejected claim (see MPEP §2143). In her rejection of independent claim 1, the Examiner asserts that Machida describes most of the claim elements but concedes that Machida fails to describe “a plurality of video decoders coupled to the **plurality of video channels, each video decoder coupled to a different one of the plurality of video channels.**” The Examiner proceeds in her rejection by asserting that Reynolds cures this discrepancy in Machida and expressly equates the various decoders of FIG. 2 (drawing items 220/224/228) of Reynolds in support of her rejection.

However, Applicant respectfully submits that Reynolds fails to describe the subject matter ascribed to it by the Examiner. For example, Reynolds fails to describe “a plurality of video decoders coupled to the plurality of video channels, each video decoder coupled to **a different one of the plurality of video channels.**”

To the contrary, Reynolds expressly describes that a multiple video feed 206 is provided to a tuner 208, which **selects a single channel.** The decoder 208 **extracts** the different component signals from the video channel (Para. 0041). As such, it is clear that in Reynolds each decoder 220/224/228 is coupled to **the same video channel.** Therefore, each video decoder (220, 224, 228) is not coupled to a **different one** of a plurality of video **channels** incoming from the multi-channel feed 206. A component signal from a channel cannot be reasonably construed to be a channel in and of itself.

Because Reynolds fails to describe that each video decoder is coupled to a different one of the plurality of video channels, Reynolds fails to cure the conceded deficiencies in Machida. Therefore, amended independent claim 1 is allowable over the combination of Machida and Reynolds for at least this reason.

In her Advisory Action mailed May 11, 2010, the Examiner attempts to rebut Applicant’s argument by pointing out that the IEEE definition of the term “channel” is a “signal path for transmitting electric signals, usually in distinction from other parallel paths.” She then asserts that based on this definition, Reynolds describes “a plurality of video decoders coupled to the

plurality of video channels [i.e. signal paths], each video decoder coupled to a different one of the plurality of video channels.”

However, Applicant respectfully points out that the claims must be given their broadest reasonable interpretation **consistent with the specification** (MPEP 2111) and that the Applicant is always his own lexicographer (MPEP 2111.01). In this respect, Applicant respectfully points to paragraph [0003] of the specification where is expressly disclosed that “[a] typical synchronized “n” channel analog video rendering system (**displaying “n” video channels simultaneously**) displays the video at...**the National Television Standards Committee (NTSC) analog video format standard.**” Throughout the specification, it is a **television channel** that is being discussed under the NTSC standard and not merely a physical signal path for transmitting signals under the IEEE standard asserted by the Examiner.

Applicant respectfully submits that the Examiner is applying an unreasonably broad definition of “channel” when the claims are considered in light of the specification as is required. Therefore, the Applicant’s definition of “channel” being a television channel under the NTSC standard, must prevail. As such, when considered in light of the specification, Reynolds describes a plurality of video decoders coupled to a single channel and does not describe “a plurality of video decoders coupled to the plurality of video channels, each video decoder coupled to a different one of the plurality of video channels.”

In regard to Mizutome, Mizutome describes a single video decoder 106 coupled to multiple video channels via a tuner 101 that selects a single channel. This is also contrary to a plurality of video decoders coupled to a plurality of video channels, each video decoder coupled to a different one of the plurality of video channels. Therefore, Mizutome fails to cure the above discussed deficiencies in the combination of Machida and Reynolds. As such, independent claim 1 is allowable over the combination of Machida, Reynolds and Mizutome for at least this reason. Independent claims 7 and 19 recite similar subject matter and are allowable for at least the same reasons. Claims 2-6, 8-13 and 20-28 properly depend from an allowable independent claim 1, 7 or 19 and are allowable therewith.

## **B. Claims 14-18**

Independent claim 14 recites, in pertinent part:

“[a] method for displaying video data from a plurality of video sources via a plurality of video channels in a display device, comprising...inputting the first decoded frame into a first video processing pipeline via a non-blocking switch network;

inputting the second decoded frame into a second video processing pipeline via the non-blocking switch network...”

To render a claim obvious, the cited references must disclose each and every element of the rejected claim (see MPEP § 2143). Applicant respectfully submits that the combination of Machida in view of Reynolds, Reitmeier, Miyazaki and Mizutome fails to describe at least inputting decoded frames into a video processing pipeline via a **non-blocking switch**.

In her final rejection, the Examiner concedes that Machida fails to describe inputting the first and second decoded frames into a first and second video processing pipeline via a **non-blocking switch** (OA page 13, lines 14-17). The Examiner then asserts that Reynolds describes “inputting the first decoded frame” and “inputting the second decoded frame” but while doing so **implicitly concedes** that Reynolds also fails to describe a non-blocking switch by omitting any assertion to the contrary (OA page 14, lines 14-17).

Applicant respectfully points out that Reynolds actually fails to teach a non-blocking switch between the video decoder 220/224 and a processing pipeline (224/226/232/238). In fact, Reynolds fails to describe any switch at all between the output of video decoders 220/224/228 and the rest of the processing pipeline (224/226/232/238). Because a non-blocking switch is not described by Reynolds, Reynolds fails to cure the conceded deficiency in Machida.

Further, Applicant respectfully submits that none of Reitmeier, Miyazaki and Mizutome describes a “non-blocking switch” or inputting the first decoded frame into a first video processing pipeline via a **non-blocking switch network**” or “inputting the second decoded frame into a second video processing pipeline via the **non-blocking switch network...**”

Because none of Reitmeier, Miyazaki or Mizutome describe a non-blocking switch and, therefore, cannot cure the conceded discrepancies in the combination of Machida and Reynolds, a *prima facie* case of obviousness cannot be established because the combination of Reitmeier, Machida, Reitmeier, Miyazaki and Mizutome fails to describe each and every claim element. As such, independent claim 14 is allowable over the combination of Reitmeier, Machida, Reitmeier, Miyazaki and Mizutome for at least this reason.

Further, a *prima facie* case of obviousness cannot be established due to a lack of motivation to combine Machida with any of the other references because Machida teaches away from the claim elements (MPEP 2145 (X)(D)). This is so because Machida teaches away from the use of a non-blocking switch (See, paragraph 0033 (image selection means 101 selects and outputs a prescribed number of images among the input images having high priority orders)). Passing along images in order of priority is antithetical to a non-blocking switch because each image cannot be processed/displayed concurrently without hindrance.

Machida expressly describes that images may only enter a processing channel 102 based on their priority assignment, which by definition entails a blocking mechanism and is contrary to

a non-blocking switch. Therefore, there is no motivation to combine Machida with any of Reynolds, Reitmeier, Reitmeier, Miyazaki and Mizutome with a reasonable chance of success because Machida teaches the use of a blocking switch arrangement that relies on image priority as discussed above. As such, independent claim 14 is allowable over the current combination of references for at least this additional and independent reason. Claims 15-18 properly depend from independent claim 14 and are allowable therewith.

In her Advisory Action mailed May 11, 2010, the Examiner attempts to reverse her express concession that Machida fails to describe a non-blocking switch. She does this by merely asserting that somehow the number of images output from the image selection means 101 may reasonably be equal to the number of processing channels 102 without regard for order or dedication to a particular image processing means 106. Applicant respectfully submits that such assertion cannot be substantiated by the text of Machida (See, para. [0030-0033] and para. [0044]) and is improper speculation.

Further, even assuming that the Examiner's speculation is correct for the sake of this argument only, Applicant respectfully submits that the image selection means 101 of Machida is still a blocking switch mechanism regardless as to whether or not on some occasions the volume of images input may be equal to the available image processing channel 102. The Examiner's speculation is akin to arguing that that a reference describing a transistor is actually describing a short because on some occasions the transistor is biased to conduct a current. Just because the transistor is biased to conduct current from time to time, it does not follow that the reference is teaching a short circuit and not a transistor. Therefore, even if the Examiner's speculation about Machida is correct, the image selection means 101 still operates as a blocking switch and teaches away from the claim recitations.

## **Conclusion**

If for some reason Applicant has not paid a sufficient fee for this pre-appeal brief, please consider this as and authorization to charge any additional fees or credit any overpayment to Ingrassia, Fisher & Lorenz, Deposit Account No. 50-2091.

Respectfully submitted,

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